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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/818,016
Filing Date: March 26, 2001
Appellant(s): MELLO ET AL.

Celso Luis Mello et al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/12/2006 appealing from the Office action mailed 08/08/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Lesaint et al. (U.S. 6,578,005)

Bergeron et al. (U.S. 4,922,514)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesaint et al. (U.S. 6,578,005) in view of Bergeron et al. (U.S. 4,922,514).

As per claim 1, Lesaint et al. discloses a system for automatically and remotely assisting a mechanic, comprising:

a planning module that automatically plans out a recommended list of tasks for the mechanic to complete during a workday (See figures 1 and 4, column 7, lines 1-30 and 48-55, column 9, lines 15-44, column 26, lines 55-67, column 27, lines 1-30, which discuss a planning module that automatically plans out the tasks for the mechanic to complete during the day);

an information module that automatically provides the mechanic information regarding items associated with the recommended routine (See figure 4 and column 7, lines 15-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic is provided instructions for the maintenance/task routine);

a communication module that facilitates communication between the mechanic and a base location (See figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module) for providing a mechanic an indication of a special service request and for allowing the mechanic to

communicate to indicate whether the mechanic accepts the assignment to the base location (See column 5, lines 15-35, wherein a mechanic is selectively provided a schedule that considers the priority (special request) of requests when the scheduling. The system determines whether the assigned mechanic has called in and accepted the request or if the request should be reassigned);

a portable mechanic interface that is operative to allow the mechanic to remotely access information from the planning, information and communication modules, respectively (See figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic has a portable interface that operatively allows the mechanic to remotely access information).

However, while Lesaint et al. discloses a field force mechanic for performing tasks and the system for said mechanic that includes the elements recited above, Lesaint et al. does not expressly disclose that the mechanic is an elevator mechanic. Furthermore, while Lesaint et al. discloses prioritizing tasks and reallocating tasks, the mechanic being able to take absence on short notice, and two-way communication between a portable device and a base location, Lesaint et al. does not expressly disclose allowing a mechanic to selectively accept an assignment of the special service request.

Bergeron et al. discloses communicating an assignment with a remote mechanic/engineer and allowing a mechanic to selectively accept an assignment of the special service request (See figure 6, column 2, lines 45-55, column 3, lines 1-15, and column 7, lines 5-45, wherein a field service worker is offered a job at a remote site for a priority job and the worker accepts or rejects the offer).

Bergeron et al. and Lesaint et al. both disclose assigning field service workers to sites, based on priority, using remote communications. Bergeron et al. further discloses allowing the field service worker to accept or reject the assignment. It would have been obvious to one of ordinary skill in the art at the time of the invention to include allowing the field mechanic of Lesaint et al. to accept or reject a communicated task in order to more efficiently produce schedules that benefit the service company by assigning the most suitable and available field mechanic to the task. See column 7, lines 45-65, column 11, line 65-column 12, line 10, and column 13, lines 10-45, which discuss a technician's preferred work area, ability to complete the task, and being absent/taking leave all being considered when producing a schedule. Allowing the technician to directly input his/her ability to perform a task would increase the efficiency of this process.

Lesaint et al. discloses a system that allocates tasks to field mechanics using remote communications. Examiner points out that the term "elevator" only appears in the preamble of the claim and has no functional effect on the body of the claim (i.e. the mechanic being an elevator mechanic is the intended field use and the elements in the body of claim are structurally the same regardless of the industry in which they are applied). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system of Lesaint et al. to assign mechanics to tasks concerning elevators in order to more efficiently allocate a plurality of field mechanics to a plurality of tasks in an industry with dynamic conditions. See column 1, lines 9-20, column 7, lines 20-30, column 8, lines 45-67, and column 9, lines 20-45, which discuss the benefits of a dynamic system and Lesaint et al. applicable to multiple industries.

As per claim 2, Lesaint et al. teaches a tracking device that automatically provides information regarding a location of the mechanic and wherein the planning module uses the location information (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein the system automatically provides status and location information to the planning module, so the schedule can continually be optimized).

As per claim 3, Lesaint et al. teaches wherein the tracking device is associated with the portable interface (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein the status and location functionality is associated with the portable interface).

As per claim 4, Lesaint et al. discloses a status module that maintains information regarding a status of a task, the status module periodically updating the status of a task responsive to information from the tracking device (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein status information is obtained and periodically updated).

As per claim 5, Lesaint et al. discloses that the planning module provides information to the mechanic regarding a plurality of tasks to be performed, a recommended order in which to perform the tasks and information regarding a location where each task is to be performed (See figure 4, column 7, lines 1-30 and 48-55, column 9, lines 15-44, column 11, lines 20-30, column 12, lines 50-55, column 26, lines 55-67, column 27, wherein the planning modules creates a schedule for a mechanic including a prioritized and sequenced tasks. The mechanic is provided

information on the tasks in a recommended order, wherein the order considers location of the tasks).

As per claim 6, Lesaint et al. discloses using location information regarding the tasks to determine the recommended order (See at least column 7, lines 48-67, column 9, lines 15-45, column 11, lines 20-30 and 55-65, column 12, lines 1-10, column 13, lines 15-20 and 38-65, and column 28, lines 30-65, which all discuss ordering and assigning tasks using location data).

As per claim 7, Lesaint et al. discloses wherein the planning module is operative to provide a prioritized order of tasks to be completed during the workday (See at least figure 4, column 7, lines 48-55, column 9, lines 15-44, column 10, lines 5-25, column 12, lines 30-65, column 26, lines 55-67, column 27, lines 1-30, which discloses planning a prioritized tour for a mechanic).

As per claim 8, Lesaint et al. teaches wherein the planning module periodically updates the prioritized order of tasks (See figure 4, column 7, lines 48-55, column 9, lines 15-44, column 26, lines 55-67, column 27, lines 1-30, wherein the order is updated).

As per claim 10, Lesaint et al. teaches wherein the communication module facilitates the mechanic providing a base location with information regarding a status of a task that the mechanic is undertaking (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30 and 45-55, column 24, line 62-column 25, line 35, column 26, lines 1-20, wherein status information is communicated to the base location).

Claims 12-16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lesaint et al. (U.S. 6,578,005).

As per claim 12, Lesaint et al. discloses a system for automatically and remotely assisting a mechanic, comprising:

a planning module that automatically plans out a recommended list of tasks for the mechanic to complete during a workday (See figures 1 and 4, column 7, lines 1-30 and 48-55, column 9, lines 15-44, column 26, lines 55-67, column 27, lines 1-30, which discuss a planning module that automatically plans out the tasks for the mechanic to complete during the day);

an information module that automatically provides the mechanic information regarding items associated with the recommended routine (See figure 4 and column 7, lines 15-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic is provided instructions for the maintenance/task routine);

a communication module that facilitates communication between the mechanic and a base location (See figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module); and

a portable mechanic interface that is operative to allow the mechanic to remotely access information from or to provide information to at least one of the planning, information, and communication modules (See figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, wherein the mechanic has a portable interface that operatively allows the mechanic to remotely access information).

Lesaint et al. further teaches a communications module that facilitates communication between the mechanic and a base location, the communication module allows the mechanic to provide information regarding the completion of a task (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-

45, wherein completion is communicated). However, Lesaint et al. does not expressly disclose automatically generating billing information.

Lesaint et al. discloses a system that assigns mechanics to appointments for completing tasks for customers, these tasks including repairs, maintenance, field service, etc. It was old and well known in the art at the time of the invention that these are all fee for service industries, requiring a client to pay for the services completed by a service provider, such as a field technician. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to automatically bill clients for the tasks performed by field technicians after the task is reported as completed in order to generate bills in a more timely manner by programming the system of Lesaint et al. to generate the bill at the time service is rendered, thus allowing for quicker compensation.

As per claim 13, Lesaint et al. discloses a method of automatically and remotely assisting a mechanic, comprising the steps of:

(A) automatically planning out a recommended list of tasks for the mechanic to complete during a workday including selectively providing the mechanic an indication of a special service request (See figure 4, column 7, lines 48-55, column 9, lines 15-44, column 10, lines 5-25, column 12, lines 30-65, column 26, lines 55-67, column 27, lines 1-30, which discloses planning a prioritized tour for a mechanic. See column 5, lines 15-35, wherein a mechanic is selectively provided a schedule that considers the priority (special request) of the request when the scheduling and providing occurs);

(B) automatically providing the mechanic information regarding items associated with the recommended routine responsive to an inquiry from the mechanic (See at least figures 1 and

4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses providing the mechanic with information regarding the routine to be performed);

(C) facilitating remote communication between the mechanic and a base location whereby the mechanic is able to access information regarding the recommended list of step (A) and the information of step (B) (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module that facilitates remote communication); and

(D) determining whether the mechanic accepts an assignment of a special service request (See column 5, lines 15-35, wherein the system determines whether the assigned mechanic has called in and accepted the request or if the request should be assigned elsewhere).

However, while Lesaint et al. discloses a field force mechanic for performing tasks and the system for said mechanic that includes the elements recited above, Lesaint et al. does not expressly disclose that the mechanic is an elevator mechanic.

Lesaint et al. discloses a system that allocates tasks to field mechanics using remote communications. Examiner points out that the term "elevator" only appears in the preamble of the claim and has no functional effect on the body of the claim (i.e. the mechanic being an elevator mechanic is the intended field use and the elements in the body of claim are structurally the same regardless of the industry in which they are applied). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system of Lesaint et al. to assign mechanics to tasks concerning elevators in order to more efficiently allocate a plurality of field mechanics to a plurality of tasks in an industry with dynamic

conditions. See column 1, lines 9-20, column 7, lines 20-30, column 8, lines 45-67, and column 9, lines 20-45, which discuss the benefits of a dynamic system and Lesaint et al. applicable to multiple industries.

Claims 14, 15, and 18 recite equivalent limitations to claims 2, 4, and 10, respectively, and are therefore rejected using the same art and rationale as applied above.

Claim 16 recites equivalent limitations to claims 7 and 8 and is therefore rejected using the same art and rationale as applied above.

As per claim 20, Lesaint et al. discloses a method of automatically and remotely assisting an elevator mechanic, comprising the steps of:

(A) automatically planning out a recommended list of tasks for the mechanic to complete during a workday (See figure 4, column 7, lines 48-55, column 9, lines 15-44, column 10, lines 5-25, column 12, lines 30-65, column 26, lines 55-67, column 27, lines 1-30, which discloses planning a prioritized tour for a mechanic);

(B) automatically providing the mechanic information regarding items associated with the recommended routine responsive to an inquiry from the mechanic (See at least figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses providing the mechanic with information regarding the routine to be performed);

(C) facilitating remote communication between the mechanic and a base location whereby the mechanic is able to access information regarding the recommended list of step (A) and the information of step (B) (See at least figures 1 and 4, column 6, lines 50-65, column 7,

lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses a communication module that facilitates remote communication).

Lesaint et al. further discloses allowing the mechanic to provide information regarding the completion of a task (See figures 1 and 4, column 8, lines 35-62, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein completion is communicated). However, Lesaint et al. does not expressly disclose automatically generating billing information.

Lesaint et al. discloses a system that assigns mechanics to appointments for completing tasks for customers, these tasks including repairs, maintenance, field service, etc. It was old and well known in the art at the time of the invention that these are all fee for service industries, requiring a client to pay for the services completed by a service provider, such as a field technician. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to automatically bill clients for the tasks performed by field technicians after the task is reported as completed in order to generate bills in a more timely manner by programming the system of Lesaint et al. to generate the bill at the time service is rendered, thus allowing for quicker compensation.

(10) Response to Argument

In the Appeal Brief, Appellant provides the following arguments:

1) There is no motivation, teaching, or suggestion to modify Lesaint et al. and the motivation provided by the Examiner does not exist. Further, incorporating the teachings of Bergeron et al. would not enhance the algorithm of Lesaint et al. and Bergeron et al. provides no benefit to Lesaint et al.;

2) As per claim 4, Lesaint et al. and Bergeron et al. do not disclose updating a status of a task responsive to information from a tracking device;

3) Lesaint et al. does not disclose billing information and billing information would in no way enhance the scheduling efficiency of Lesaint et al.;

4) Lesaint et al. has no capacity for providing a mechanic information regarding items associated with a recommended routine responsive to an inquiry from the mechanic;

5) In claim 13 Examiner asserts that Lesaint et al. discloses the freedom of a mechanic to accept or decline an assignment, which is contrary to what was asserted in claim 1.

In response to argument 1), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Bergeron et al. and Lesaint et al. disclose assigning field service workers to sites, based on priority, using remote communications. Therefore, both applications are in the same field of endeavor. Lesaint et al. further discloses generating an initial schedule and updating the schedule as more and more data becomes available. Lesaint et al. further discloses that the system knows whether the assigned mechanic has called in and taken on the request or if the request should be assigned elsewhere.

Bergeron et al. discloses allowing the worker to actively accept or reject the assignment. Therefore, since Lesaint et al. considers a technician's preferred work area, ability to complete

the task (i.e. are they available, have they checked in, are they absent/taking leave), and iteratively updates schedules of mechanics as new information becomes available, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow the field mechanic of Lesaint et al. to accept or reject a communicated task in order to more efficiently produce schedules that benefit the service company by assigning the most suitable and available field mechanic to the task. See column 7, lines 45-65, column 11, line 65-column 12, line 10, and column 13, lines 10-45.

With regards to modifying Lesaint et al. to include elevator mechanics, Examiner points out that the term "elevator" only appears in the preamble of the claim and has no functional effect on the body of the claim (i.e. the mechanic being an elevator mechanic is the intended field use and the elements in the body of claim are structurally the same regardless of the industry in which they are applied). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the system of Lesaint et al. to assign mechanics to tasks concerning elevators in order to more efficiently allocate a plurality of field mechanics to a plurality of tasks in an industry with dynamic conditions. See column 1, lines 9-20, column 7, lines 20-30, column 8, lines 45-67, and column 9, lines 20-45, which discuss the benefits of a dynamic system and Lesaint et al. applicable to multiple industries.

In response to argument 2), Examiner respectfully disagrees. Lesaint et al. specifically discloses a schedule status and technician status register. See figures 1 and 4, column 9, lines 20-42, column 10, lines 5-10, column 11, lines 10-30, column 13, lines 38-45, wherein status information is obtained and periodically updated.

In response to argument 3) concerning "billing information", Lesaint et al. is concerned with the customer service industry. As asserted in the § 103 rejection above, Lesaint et al. discloses a system that assigns mechanics to appointments for completing tasks for customers, these tasks including repairs, maintenance, field service, etc. It was old and well known in the art at the time of the invention that these are all fee for service industries, requiring a client to pay for the services completed by a service provider, such as a field technician. Since Lesaint et al. disclosed reporting the completion of a service, it would have been obvious to one of ordinary skill in the art at the time of the invention to automatically bill clients for the tasks performed by field technicians after the task is reported as completed in order to generate bills in a more timely manner by programming the system of Lesaint et al. to generate the bill at the time service is rendered, thus allowing for quicker compensation.

See other prior art cited, which discusses the use of billing and invoicing to collect fees for services provided. For example, Hebert (U.S. 2002/0055358) discloses a wireless communication device used by a field technician to communicate with a base service provider computer for receiving information and inputting information about customers, invoicing, etc. Herbert discloses a data input and retrieval system for field located technicians, engineers, etc. for providing technical troubleshooting assistance, determining system efficiency and performance, creating customer files and database, and providing direct customer billing based on field acquired data and information input via a remote device. The remote device connects to the base located system, such as a service provider system. The base located system transmits data to the remote device of the field personnel utilization in the field and at the same time creates customer database information, such as billing data (See paragraphs 0046-7).

In response to argument 4), Examiner respectfully disagrees. See figures 1 and 4, column 6, lines 50-65, column 7, lines 1-30 and 47-55, column 9, lines 20-44, column 11, lines 20-30, which discloses providing the mechanic with information regarding the routine to be performed, such as instructions suggested by the system. A remote communication occurs between the mechanic and the system, whereby the instructions are communicated to the mechanic.

In response to argument 5), examiner points out that claim 1 and claim 13 contain different limitations. Claim 1 recites "allowing the mechanic to selectively accept an assignment of the special service request and for allowing the mechanic to communicate whether the mechanic accepts the assignment to the base location" whereas claim 13 recites "determining whether the mechanic accepts an assignment of a special service request". There are significant differences in these two limitations. Claim 1 requires that the mechanic chooses to accept the assignment and sends a communication to the base location indicating such a selection. Claim 13 does not expressly recite this feature of choice. Rather, claim 13 merely states a mechanic accepts (i.e. receives) an assignment. Also, unlike claim 1, claim 13 recites that this acceptance is determined, rather than the mechanic actively communicating a chosen acceptance back to the system. Therefore, with regards to claim 13, Lesaint et al. discloses the system knowing whether the assigned mechanic has called in and taken on the request or if the request should be assigned elsewhere. See column 5, lines 15-35. However, with regards to claim 1, Lesaint et al. does not teach a mechanic choosing to accept a task and communicating back with the system. Thus, Examiner reasserts the 35 USC § 103 logic, set forth above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully Submitted,

Beth Van Doren

bvd
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